IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/552,909	Confirmation No. 6970
Applicants	:	Yingxian XIAO *et al.*	
Filed	:	October 13, 2005	
Title	:	GENE EXPRESSION SUPPRESSION AGENTS	
Group Art Unit	:	1635	
Examiner	:	Jane J. ZARA	
Docket No.	:	PCPL.148004 (current docket no.) 132848-01US (former docket no.)	

Customer No. : 67318

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION

Sir:

1. I, Yingxian Xiao, do declare and state:

2. I am a co-inventor of all of the claims of the above-identified patent application.

3. I received my Ph.D. degree in Botany from University of Maryland at College Park in 1994. I received my M.S. degree in Microbiology from Institute of Microbiology, Chinese Academy of Sciences, Beijing, China in 1985. In 1982, I received my B.S. in Microbiology from Northwestern University, Xi'an China.

4. Since 1982, I have actively participated in bio-medical research.

5. My research findings have been published in more than 60 papers in peer-reviewed journals. I have also written several book chapters.

6. My research at University of Maryland at College Park from 1988 to 1994 focused on transcriptional regulation. Five of my papers were published to report the mechanism of transcriptional regulations.

7. The invention for which I am co-inventor embodies two related aspects. The first is the use of Type 1 Pol III promoter (5S rRNA) to express shRNA/siRNA and the second is a template for the shRNA/siRNA located after the transcript starting site and before the three cis-acting elements, A Box, IE and C Box.

8. I reviewed all five of the references cited in the Office Action of November 5, 2009. I respectfully submit that none of the five references, Thompson (USPN 5,902,880), Jennings *et al.*, Fire *et al.* (USPN 6,505,559), Tuschl *et al.* (WO 02/44321) and Moyer *et al.* (US 2005/0014263), teaches either the above-described first or second aspects. Though the possibility of using Type 1 Pol III promoter is mentioned, none of the five references teaches a specific structure that uses the Type 1 promoter to express any recommended RNA.

9. The references do not individually suggest their being combined with any other reference. However, even if two or more of these references were combined, a researcher in the field may believe that the Type 1 promoter can be used to express RNAs, just like Type 2, or 3, promoter, which is described in the references.

10. However, it is not known much less obvious to anyone in the field how to express the RNAs because there are three cis-acting elements in the Type 1 promoter. Accordingly, even if all five references were combined, the use of Type 1 Pol III promoter (5S rRNA) to express shRNA/siRNA and the location of the template for the shRNA/siRNA after the transcript starting site and before the three cis-acting elements (A Box, IE, and C Box) would not be obvious and, in fact, was an entirely unexpected result.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful

false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 10/5/10

Yingxian Xiao